

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/802,126	FANG ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kianni C. Kaveh	2833	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/1/05 and 4/5/05.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☒ The drawings filed on 20 August 2004 and 16 March 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date <u>10</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                         | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|  | 9. <input type="checkbox"/> Other _____   |



### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Popovici on 4/05/05. This amendment was implemented in order to distinguish the claimed invention over the prior art and thus made the case allowed. The inserted limitations into claims makes clear that the fixed mirror(s) and the prism are physically separated from each other, in order, in combination with other limitations of the base claim, to overcome the teachings of the closest prior art of the record Chen et al.

In page 2, line 16, immediately after 'the first collimator,' insert separated from the switching prism.

In page 2, line 19, immediately after 'the second collimator,' insert separated from the switching prism.

In page 3, line 28, immediately after 'a fixed mirror' insert separated from the switching prism

In page 5, line 3, immediately after 'the first collimator,' insert separated from the switching prism.

In page 6, line 16, immediately after 'a fixed mirror' insert separated from the switching prism

#### ***Reason for Allowance***

Claims 1-20 are allowed for the following reasons:

The instant application is deemed to be directed to a nonobvious improvement over the invention patented in Pat. No. Chen et al. (US 6647173).

Claim 1 is allowed because the prior art of record, taken alone or in combination, fails to disclose or render obvious a first/second fixed planar mirror facing the first/second collimator, separated from the switching prism, and aligned to reflect light from the first/second input fiber into the first /second output fiber when the switching prism is in the second position in combination with the rest of the limitations of the base claim. Claims 2-4 depend on claim 1 and therefore they are also allowed.

Claim 5 is allowed because the prior art of record, taken alone or in combination, fails to disclose or render obvious using a fixed mirror separated from the switching prism to reflect light emitted from the input optical fiber of the second collimator into the output fiber of the second collimator when the switching prism is in the second position in combination with the rest of the limitations of the base claim.

Claims 6-8 depend on claim 5 and therefore they are also allowed.

Claim 9 is allowed because the prior art of record, taken alone or in combination, fails to disclose or render obvious a first fixed planar mirror facing the first collimator, separated from the switching prism, and aligned to reflect light from the input fiber of the first collimator into an output fiber of the first collimator when the switching prism is in the second position. Claims 10-14 depend on claim 9 and therefore they are also allowed.

Claim 15 is allowed because the prior art of record, taken alone or in combination, fails to disclose or render obvious employing a fixed mirror separated from the switching prism to reflect light emitted from the input optical fiber of the first collimator into an output fiber of the first collimator when the switching prism is in the second position in combination with the rest of the limitations of the base claim. Claims 16-20 depend on claim 5 and therefore they are also allowed.

The functionality of the optical elements of Chen et al. as shown in figures 3-4 depend on physical movement of mirror(s) to implement optical switching function—and through, as in figure 5-6, the mirrors are fixed onto prism but they are not physically separated from the prism, since they need to be fixed onto the prism in such

Art Unit: 2833

embodiment--which can not over come the claimed limitations in which the optical switching is implemented through physically separated fixed mirrors in conjunction with a switching prism, shown in figures 3-4 and 6-8 of the specification.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Cyrus Kianni whose telephone number is (571) 272-2417.

The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 6:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font, can be reached at (571) 272-2415.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(703) 872-9306 (for formal communications intended for entry)

**or:**

Hand delivered responses should be brought to Crystal Plaza 4, 2021 South Clark Place,  
Arlington, VA., Fourth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 308-0956.



K. Cyrus Kianni  
Patent Examiner  
Group Art Unit 2883

April 5, 2005